

We claim:

1. An electronic display for presenting data from a vertical speed source aboard an aircraft, wherein said display comprises:
  - a fractional section of a vertical speed indicator scale; and
  - a vertical speed indicator marker,wherein said vertical speed indicator scale is non-linear;  
wherein said vertical speed indicator marker shows the vertical speed of said aircraft as indicated by said vertical speed source; and  
wherein said fractional section of said vertical speed indicator scale shows graduations marked on said part of said fractional section of said vertical speed indicator scale in the vicinity of said vertical speed indicator marker.
2. The electronic display of claim 1, wherein said vertical speed indicator scale is elliptically shaped.
3. The electronic display of claim 1, wherein said vertical speed indicator marker shows a vertical speed trend.
4. The electronic display of claim 1, wherein said vertical speed indicator marker shows a vertical speed trend by its motion to replicate the motion of an analog instrument.
5. The electronic display of claim 1, wherein said vertical speed indicator marker is comprised of a pointer.
6. The electronic display of claim 1, wherein said vertical speed indicator marker is comprised of a numeric display.

7. The electronic display of claim 1, wherein said vertical speed indicator marker is comprised of a pointer and a numeric display.
8. The electronic display of claim 1, wherein said vertical speed scale has a continuous range with indices at 0 (zero) feet per minute,  $\pm 500$  feet per minute,  $\pm 1000$  feet per minute,  $\pm 1500$  feet per minute,  $\pm 2000$  feet per minute,  $\pm 2500$  feet per minute,  $\pm 3000$  feet per minute,  $\pm 4000$  feet per minute,  $\pm 5000$  feet per minute, and  $\pm 6000$  feet per minute.
9. The electronic display of claim 1, wherein said fractional section of said vertical speed indicator scale always shows an indicia for a value of 0 (zero) vertical speed.
10. The electronic display of claim 1, wherein said vertical speed indicator marker is comprised of a digital readout of the vertical speed of said aircraft.
11. The electronic display of claim 10, wherein said digital readout of the vertical speed is bounded by the range of  $\pm 9999$  feet per minute.
12. The electronic display of claim 1, additionally comprising TCAS resolution advisory indicators along a periphery of said vertical speed indicator scale  
wherein said TCAS resolution advisory indicators are shown during a TCAS resolution advisory condition.
13. The electronic display of claim 12, wherein said TCAS resolution advisory condition triggers an increase in size of said electronic display.
14. The electronic display of claim 12, wherein said TCAS resolution advisory condition triggers said vertical speed indicator scale to show a fixed arc shape.

15. The electronic display of claim 12, wherein said TCAS resolution advisory indicators are comprised of red marks and green marks.
16. The electronic display of claim 1, additionally comprising a vertical speed bug having a shaped indicator in a position inside of said fractional section of said vertical speed indicator scale,  
  
wherein said vertical speed bug indicates a selected vertical speed value.
17. The electronic display of claim 16, wherein said vertical speed bug points to a location on said fractional section of said vertical speed indicator scale equivalent to said selected vertical speed value.
18. The electronic display of claim 16, wherein said vertical speed bug points to a location on an edge of said fractional section of said vertical speed indicator scale when said selected vertical speed value is outside the range of values shown by said fractional section of said vertical speed indicator scale; and  
  
wherein said shaped indicator of said vertical speed bug changes to provide a visual cue.
19. The vertical speed bug of claim 18, wherein said shaped indicator changes to one-half of its original shape to provide said visual cue.
20. An electronic display for presenting data from a vertical speed source aboard an aircraft, wherein said display comprises:  
  
a fractional section of a vertical speed indicator scale; and  
  
a vertical speed indicator marker,  
  
wherein said vertical speed indicator scale is non-linear;  
  
wherein said vertical speed indicator scale is elliptically shaped

wherein said fractional section of a vertical speed indicator scale shown by said electronic display will change relative to the vertical speed depicted by said vertical speed indicator marker,

wherein said vertical speed indicator marker shows the vertical speed of said aircraft as indicated by said vertical speed source;

wherein said vertical speed indicator marker is comprised of a pointer and a digital numeric display; and

wherein said fractional section of said vertical speed indicator scale shows graduations marked on said part of said fractional section of said vertical speed indicator scale in the vicinity of said vertical speed indicator marker.

21. The electronic display of claim 20, wherein said vertical speed indicator marker is shown equidistant between an upper value and a lower value on said fractional section of said vertical speed rate scale.
22. The electronic display of claim 20, wherein said vertical speed rate scale has a continuous range with indices at 0 (zero) feet per minutes,  $\pm 500$  feet per minute,  $\pm 1000$  feet per minute,  $\pm 1500$  feet per minute,  $\pm 2000$  feet per minute,  $\pm 2500$  feet per minute,  $\pm 3000$  feet per minute,  $\pm 4000$  feet per minute,  $\pm 5000$  feet per minute, and  $\pm 6000$  feet per minute.
23. The electronic display of claim 20, wherein said wherein said digital readout of the vertical speed is bounded by the range of  $\pm 9999$  feet per minute.
24. The electronic display of claim 20, additionally comprising TCAS resolution advisory indicators along a periphery of said vertical speed indicator scale,

wherein said TCAS resolution advisory indicators are shown during a TCAS resolution advisory condition.

25. The electronic display of claim 24, wherein said TCAS resolution advisory condition triggers an increase in size of said electronic display.
26. The electronic display of claim 24, wherein said TCAS resolution advisory condition triggers said vertical speed indicator scale to show a fixed arc shape.
27. The electronic display of claim 24, wherein said TCAS resolution advisory indicators are comprised of red marks and green marks.
28. The electronic display of claim 20, wherein said vertical speed indicator marker is shown parked at the edge of said fractional section of said vertical speed rate scale when said vertical speed source indicates said vertical speed of said aircraft is  $\pm 6000$  feet per minute.
29. The electronic display of claim 28, wherein said fractional section of said vertical speed rate scale shows a maximum indicia of either +6000 feet per minute or – 6000 feet per minute.
30. The electronic display of claim 28, wherein said digital numeric display is bounded by  $\pm 9999$  feet per minute.
31. The electronic display of claim 28, wherein said fractional section of said vertical speed rate scale shows an indicia for 0 (zero) feet per minute.